

## **ABSTRACT**

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The invention comprises a method of connecting an integrated optical waveguide circuit component to an optical fiber array. The invention includes the steps of: providing an integrated optical waveguide circuit component having an array of N wave guide ports for optical processing that contain a subset of u-waveguides (one or  
10 more) structures for optimizing optical alignment; providing an optical fiber array having an array of at least N optical fibers, and positioning the optical fiber array adjacent to the circuit component so that photons emitted from the optical fiber array ports are coupled into the respective individual corresponding u-waveguide port(s) and then back into the corresponding optical fiber coupling ends of the optical fiber  
15 array.